

REMARKS

Upon entry of this Amendment, claims 1, 2, and 5-8 will be pending in the present application. Claim 1 is herein amended to place the application in better condition for examination. Claims 3 and 4 are canceled. No new matter has been entered. It is respectfully submitted that this Amendment is fully responsive to Office Action dated December 28, 2006.

Applicants appreciate the courtesy extended by Examiner Ludlow in a personal interview conducted on March 20, 2007. Applicants separate record of the subject matter of the interview is incorporated into the remarks below.

Claim Rejections – 35 U.S.C. 103(a)

Claims 1 and 3-8 were rejected under 35 U.S.C. 103(a) as unpatentable over *Adebi* (U.S. Pat. No. 6,413,431). Claim 2 was rejected under 35 U.S.C. 103(a) as unpatentable over *Adebi* in view of Fischer et al. (2002/021468).

Applicants respectfully disagree with the Examiner's grounds for rejection for the reasons discussed in the Amendment filed on October 6, 2007. The combination of *Abedi* and/or *Fischer* does NOT teach or suggest a logical operator, which performs a binary operation using binary signals from plural detectors and controls a separation controller based on the binary operation. However, to expedite prosecution and clarify the subject matter of the present invention, Applicants hereby amend claim 1 to incorporate the subject matter of claim 3 and cancel claims 3 and 4. In view of this amendment and the following remarks, Applicants request that the rejection of claims 1, 2, and 5-8 be withdrawn.

To establish a *prima facie* case of obviousness, the combination of cited references must teach or suggest all of the limitations of the claimed invention. See MPEP 2143. Here, neither

reference, alone or in combination, teaches or suggests a preparative liquid chromatograph including *a binary converter for converting each of the plurality of chromatograms into a respective binary signal by comparing the chromatogram with a predetermined threshold, wherein the binary operation performed in the logical operator is AND of all the respective binary signals.* See Claim 1. Instead, *Adebi* merely discloses a system using one or more detectors for fraction collection. The advantages of the binary operations (or logical operations) of the binary data are described at [0015] and [0016] in a quite concise manner. An AND operation assures a high precision and high purity separation, whereby an impurity mingling is minimized. An OR operation assures a separation of as many components as possible appearing in the chromatograms generated by the detectors. These advantages are not "suggested" in *Abedi* or *Fischer* by any means. The device described in the cited reference does not include a binary AND operation performed on the UV and/or MS detectors (e.g., the device only collects when where is a peak, more like an "OR" operation.) The inclusion of the phrase "and/or" in column 6, lines 58-63 does NOT relate to the Boolean logic of the claimed invention. In other words, *Adebi* teaches no more than what is described in the Background of the Invention section of the present application. See page 2, lines 14-24 (i.e., "[I]n conventional preparative LCs using the multiple detection system, the separation of components of a sample is performed based on the detection signals of the plural detectors, where the detection signals are chosen arbitrarily.")

Accordingly, Applicants respectfully submit that the Examiner has failed to present a *prima facie* case of obviousness with regards to independent claim 1 and dependent claims 3-8.

Conclusion


In view of the aforementioned amendments and accompanying remarks, Applicant submits that the claims, as herein amended, are in condition for allowance. Applicant requests such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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